

HUDSON REFINERY
SUPERFUND SITE

Cushing, Oklahoma

EPA Region 6

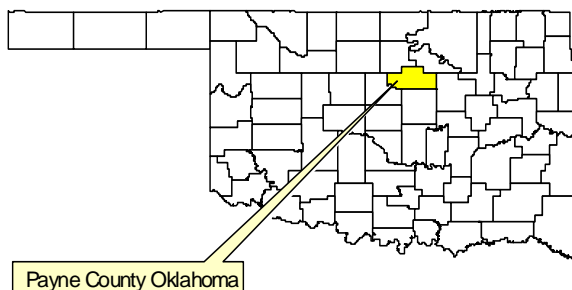
EPA ID# OKD082471988

Site ID: 0601160

U.S. Congressional District: 3

Fact Sheet Update:

August 2004



SITE DESCRIPTION

Location: The Hudson Refinery site is located in Cushing, Payne County, Oklahoma. Surrounding the site are residential and agricultural lands to the north and commercial properties to the south. Highway 33 (Main Street) separates the site into a “north” and “south” refinery. The “North refinery” consists of approximately 165 acres, and the “South refinery” is approximately 35 acres.

Setting: Historical aerial photographs indicate the site operated as a refinery beginning as early as the mid-1930s. Refining operations ended in 1982, and the site was abandoned. The majority of the tanks have been removed from the tank farm areas. The site includes above-ground storage tanks, wastewater treatment impoundments, separators, stained soils, a land treatment unit, and loose and friable asbestos containing material. Runoff from the site enters onsite wetlands and stormwater collection ponds.

Population: For a 50 square mile area around the site, the population is about 12% minority and 46% economically stressed. There are approximately 8,371 residents in the City of Cushing.

PRESENT STATUS AND ISSUES

- Access agreements were secured from property owners enabling Oklahoma Department of Environmental Quality (ODEQ) to commence with Remedial Investigation/Feasibility Study (RI/FS) site work.
- RI/FS ground water sampling will begin the first week in October 2004. Phase I soil sampling, surface water, and sediment sampling was conducted and completed during June, July and August 2004

WASTES AND VOLUMES

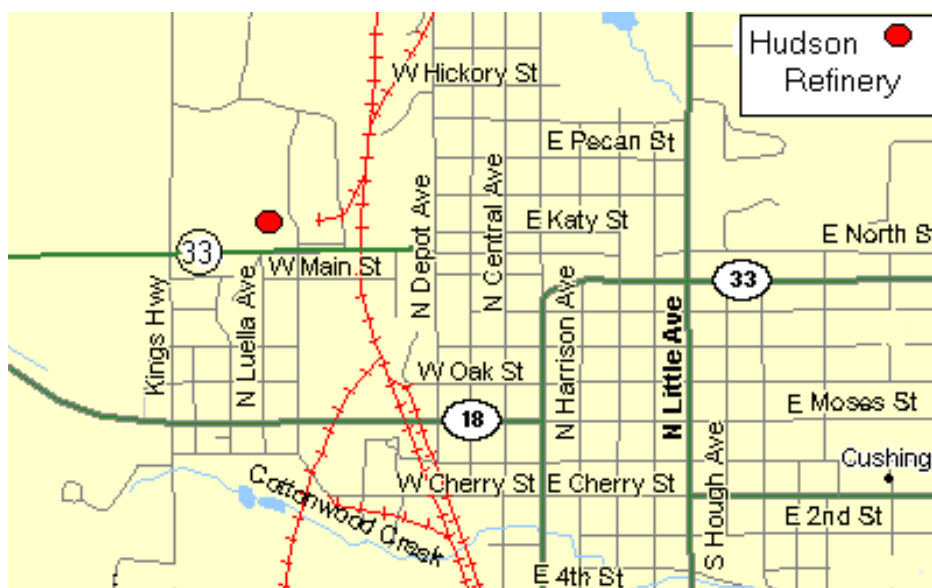
EPA identified six sources of contamination at the site during a 1998 removal assessment and a 1998-1999 expanded site inspection. Elevated levels of chromium, mercury, polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) were detected in the sources at the site. Elevated levels of chromium and mercury also were detected in wetlands associated with a former biotreatment pond at the site. The 1998-1999 removal action included the abatement of loose and friable asbestos, and cleanup of miscellaneous chemicals and drums. On the north side of the refinery, an anhydrous hydrogen fluoride (HF) alkylation plant was dismantled and a leaking hydrofluoric acid tank which contained 12,000 gallons of hydrofluoric acid was removed along with two tetraethyl lead tanks. The north and south refineries also contained an 11-acre land treatment unit, wastewater separators, collection and biotreatment ponds,, several other storage tanks, and contaminated soil.

The refinery superstructure included 22 towers, 216 process vessels, and eight buildings located within the project area, cooling towers, TEL buildings (North and South refineries), and associated aboveground piping. Miscellaneous items included contents of collection basins of the cooling towers and caustic sump, miscellaneous containers and drums, above-ground storage tanks (ASTs) outside the refinery superstructure, and structurally unsafe buildings. Because the North refinery was not properly closed in 1982, chemicals remained in the lines and vessels. Starting in September Of 2001 a non-time critical removal action addressed the refinery superstructure and removal of associated gross contamination. The contents of the process vessels and piping were purged of chemicals and the remaining refinery superstructure dismantled. All miscellaneous piping (approximately 36,222 ft) and metal has been removed from the site. Asbestos abatement activities at the site have been completed with approximately 30,169 ft² of vessel insulation and 22,251 ft² of pipe insulation abated. All vessels and towers, including 224 vessels and 22 towers have been drained and removed. The dismantling of the superstructure included the use of explosives to control the fall of the large towers and vessels. All lines at the site were investigated and drained at the site. This involved approximately 562 cold taps and approximately 859 drill taps. All of the elemental mercury gauges have been removed.

SITE ASSESSMENT AND RANKING

NPL Inclusion Proposal Date:	April, 1999
NPL Inclusion Final Date:	July 19, 1999

SITE MAP



THE REMEDIATION PROCESS

Site History

- The Hudson Refinery site, once owned by Quantum Realty Company, (Quantum), is an inactive refinery that produced liquid propane gas, gasoline, diesel fuel, fuel oils, and coke from 1922 to 1984.
- EPA determined that the site presented an imminent and substantial threat to public health and the environment and on August 10, 1998, approved a \$1 million ceiling to initiate a classic emergency removal action at the site.
- In 1998, EPA completed a classic emergency response action on the South refinery to address the known existence of 23,000 square feet of loose and friable asbestos, two lab buildings and 16 other buildings housing miscellaneous chemicals and drums (the asbestos abatement contractors mobilized to the site on September 30, 1998). EPA also completed a classic emergency response on the North refinery in 1998, to address an anhydrous HF alkylation plant and an actively leaking 12,000 gallon HF storage tank and two tetraethyl lead tanks. The U.S. Coast Guard Gulf Strike Team was on-site to perform safety oversight. Additionally, EPA completed an Oil Pollution Act removal action to address nonhazardous oily waste, including oil-stained soils, tank bottoms, tank contents, drums and sludge from sumps, API separators, and a coke pond.
- EPA identified six sources of contamination at the site during a 1998 removal assessment and a 1998-1999 expanded site inspection.
- On March 4, 1999, the Agency for Toxic Substances and Disease Registry (ATSDR) issued a public health advisory for the Hudson Refinery site because of the immediate threats to public health posed by hydrofluoric acid and tetraethyl lead, as well as asbestos, found at the site.

- In 2001, EPA completed an Engineering Evaluation/Cost Analysis (EE/CA) to investigate above-ground contamination remaining on the North Refinery.
- On January 26, 2001, the potentially responsible parties declined to participate in the future RI/FS at the Site. As a result, the ODEQ took the lead in conducting the RI/FS with the EPA as the support agency.
- An Action Memorandum for a Non-time Critical (NTC) removal action at the site was signed on September 25, 2001.
- In November 2001, the county sold the property at a public auction (a Sheriff's sale) for back taxes. Three parties purchased the property.
- On December 12, 2001, the city of Cushing enacted an ordinance (Ordinance No. 12-18-01-07) restricting the use and occupancy of the site.
- Access agreements were secured from property owners enabling EPA to initiate a Non-Time Critical Removal Action in September 2002, to address the refinery superstructure, supporting structures and pipelines.
- ODEQ placed a pre-qualification advertisement in the Engineering News-Record (ENR) and The Journal Record on October 21, 2002, for engineering consulting services for the Remedial Investigation/Feasibility Study (RI/FS).
- The implementation of the Non-Time Critical Removal Action to address the refinery superstructure, supporting structures and pipelines has been completed.
- On June 18, 2003, EPA conducted a site walk with the ODEQ in accordance with the Superfund Removal Contract to confirm that the project was complete as well as consistent with the contract requirements and the EPA approved remedy. Contractors demobilize from the site in July 2003.
- The ODEQ initiated the RI/FS - September 2003.
- ODEQ has finalized documents associated with the initiation of the RI/FS. The ODEQ, EPA and the state lead contractor held the RI/FS Kick-off meeting and site visit on February 13, 2004.
- Access agreements were secured from property owners enabling ODEQ to commence with RI/FS site work.
- RI/FS soil sampling will began the third week in June 2004.

Health Considerations

There is a potential exposure threat to human health from the North refinery through ingestion, dermal contact, or inhalation of more than 70 hazardous chemicals potentially present at the site. These materials present both a cancer and non-cancer risk to human health. Toxic effects vary, ranging from minor skin and eye irritations to cancer, asphyxiation, and death. Some of the more toxic chemicals that may be present are tetra-ethyl lead (TEL), hydrogen sulfide (H₂S), benzene, hydrochloric acid (HCL), hydrosulfuric acid, hydrofluoric acid (HF), mercury, arsenic, chromium, ammonia, and calcium hypochlorite. Also, the asbestos containing material associated with the piping and vessels at the facility was friable and had weathered and deteriorated over time posing an increasing risk of release to the air.

RECORD OF DECISION

No ROD has been signed for the site

The Record of Decision (ROD) will be developed after the RI/FS and Proposed Plan are presented to the public for comment.

COMMUNITY INVOLVEMENT

The city administration and community are regularly informed of the Site status and EPA's continuing Site assessment process through direct communication (e.g., mail, phone, etc.) and the internet (<http://www.epa.gov/earth1r6/6sf/6sf.htm>).

EPA Formal Meetings: Developed in response to EPA actions or community concerns.

Constituency Interest: Nearby residents concerned about ground water issues are supportive of State and EPA efforts.

Site Repository: Cushing Public Library, 215 North Steele, Cushing, Oklahoma 74023-0311 (918-225-4188)

Bulletins/

Fact Sheets Mailed: 3/01, 6/01, 7/01, 9/01, 8/02

- 3/27/2001 – town meeting to discuss the Draft Engineering Evaluation/Cost Analysis (EE/CA).
- Public comment period on EE/CA commenced July 30, 2001, and concluded August 29, 2001.
- ODEQ and EPA held a public meeting to mark the completion of the Removal Action and the start of the Remedial Investigation/Feasibility Study on August 5, 2003.
- ODEQ, EPA, and ATSDR held a public Open House meeting on May 13, 2004, to provide information and answers questions about the start of the RI/FS site work.

REDEVELOPMENT GRANT

The City of Cushing received a Superfund Redevelopment Pilot grant in 9/2000. The \$100,000 grant enables the city to study options for reuse of the Hudson Refinery site. A local planning committee has been formed to study reuse alternatives.

TECHNICAL ASSISTANCE GRANT

Availability Notice: 4/23/99, 07/99, 8/3/00, 10/11/00, 12/00

Letters of Intent Received: 7/10/00 - Richard Silas, Washington Heights Environmental Coalition, Inc. (WHEC); 12/20/00 - Richard Silas, Washington Heights Environmental Coalition, Inc.

Final Application Received: Final corrected application received from Washington Heights Environmental Coalition, Inc. on May 21, 2001.

Grant Award: August 9, 2001 to WHEC; Ms. Chon Rouse-Hamilton of Oklahoma City, OK was selected as the Technical Advisor October 10, 2002. Joyce Gilcrest hired as TAG Administrator.

Budget/Project Period: 8/09/01 - 7/31/04

NOTE: TAG recipients failed 2003 award compliance review and is in non-compliance mode as of 12/31/03. TAG off-site compliance review conducted 4/04, awardee still in non-compliance. In May 2004, EPA received a letter of resignation from Richard Silas as WHEC President. He indicated that the new WHEC president is Mr. Phillip Jones. No follow-up documentation has been received from Mr. Jones as of 6/14/04.

SITE CONTACTS

United States Environmental Protection Agency

Remedial Project Manager:	Laura Stankosky	214-665-7525
On-Scene Coordinator:	Rita Engblom	214-665-8341
Community Involvement EPA:	David Birdsong	214-665-2221
Site Attorney:	George Malone	214-665-8030
State Coordinator EPA:	Roberta Hirt	214-665-8079
Regional Public Liaison:	Arnold Ondarza	1-800-533-3508
Superfund Region 6 Toll Free Number:		1-800-533-3508

Oklahoma Department of Environmental Quality

Project Manager:	Amy Johnson	405-702-5133
Environmental Specialist:	Rita Kottke	405-702-5127

ENFORCEMENT

- Oral notice of potential liability was given to the current owner, Quantum Realty Company, L.C. (Quantum), through its then attorney, Greg Turner, on or about August 6, 1998. Quantum received written notice in a Unilateral Administrative Order (UAO) for access and noninterference issued on September 9, 1998.
- The EPA perfected a lien upon the real property at the site on June 8, 2001 and was amended on January 16, 2002.
- Notice letters and information requests were sent to eight PRPs on 2/7/02, which also included requests for access.

BENEFITS

The cleanup of the contamination present at the Hudson Oil Refinery Superfund site will ensure the protection of human health and the environment.